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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,123

03/31/2004

Gary W. Atkinson

Atkinson 3-1-28

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02/02/2009

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EXAMINER

MERED, HABTE

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

02/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,123	Applicant(s) ATKINSON ET AL.	
	Examiner HABTE MERED	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/28/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-10,13 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,13,15-19 and 24-26 is/are allowed.
- 6) ☒ Claim(s) 1,4,6-9 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>see attached</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment entered on 10/28/2008 has been entered and fully considered.
2. Claims 1, 4, 6-10, 13, and 15-26 are pending. Claims 1 and 10 are the base independent claims that are currently amended. Claims 21-26 are new wherein claims 21 and 24 are new independent claims.

Response to Arguments

3. Applicant's arguments, see Remarks, filed on 10/28/2008 with respect to the rejection(s) of previously pending claims 1 and 2 and now presented as new independent claim 21 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. Similarly, the rejection(s) of previous pending claims 10 and 11 and now presented as new independent claim 24 have been withdrawn. Applicant's arguments is persuasive in pointing out that Mayo presents a solution of a design problem that calculates a single path plan and minimizes the cost while the independent claims 21 and 24 call for calculation of two different sets of path plans and determining a common path between the sets that minimizes cost and meet failure related cross-connection criterion.

Claim Rejections - 35 USC § 101

4. **Claims 1, 4, 6-9, and 20-23** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 4, 6-9, and 20-23 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101”). The instant **claims 1, 4, 6-9, and 20-23** neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Furthermore, the claims (**i.e., particularly independent claims 1 and 21**) recite purely mental steps (calculating, identifying, determining, saving, repeating, selecting and changing data) without tying the steps to one of the four statutory categories of invention recited in USC § 101.

Allowable Subject Matter

5. **Claims 10, 13, 15-19, and 24-26** are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

Claim 10 and all of its dependent claims (i.e. 13 and 15-19) are allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or suggest a path manager for a mesh communications network, the manager comprising one or more computing elements, wherein the manager is adapted to:

receive one or more demands for service in the mesh network, which network comprises a plurality of nodes interconnected by a plurality of links; and map each of the one or more demands onto a primary path and a restoration path in the network to generate at least one path plan for the one or more demands in the network, wherein the at least one path plan is generated as a function of (i) one or more cost criteria associated with the at least one path plan and (ii) a failure-related cross-connection criterion associated with the path by:

(a) calculating a set of node-disjoint path pairs for the one or more demands based on the failure-related cross-connection criterion, wherein a node-disjoint path pair is calculated for each demand;

(b) identifying primary and restoration paths for each node-disjoint path pair in the set to generate a path plan for the one or more demands;

(c) determining whether the path plan satisfies the failure-related cross-connection criterion;

(d) saving, when the path plan satisfies the failure-related cross-connection

criterion, the path plan;

(e) repeating steps (a)-(d) to generate two or more path plans that satisfy the failure-related cross-connection criterion; and

(f) selecting one of the path plans based on the one or more cost criteria.

It is noted the closest prior art, Mayo, discloses minimizing transmission cost on each span and number of cross connects at each for a single set of path calculation.

Claim 24 and all of its dependent claims (i.e. 25-26) are allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or suggest a path manager for a mesh communications network, the manager comprising one or more computing elements, wherein the manager is adapted to:

receive one or more demands for service in the mesh network, which network comprises a plurality of nodes interconnected by a plurality of links; and map each of the one or more demands onto a primary path and a restoration path in the network to generate at least one path plan for the one or more demands in the network, wherein the at least one path plan is generated as a function of (a) one or more cost criteria associated with the at least one path plan and (b) a failure-related cross-connection criterion associated with the path plan by:

calculating a first set of one or more path plans that satisfy the one or more cost criteria;

calculating a second set of one or more path plans that satisfy the failure-related cross-connection criterion;

determining whether the first and second sets have any path plans in common;

and

if not, then, until the first and second sets have at least one path plan in common,

relaxing the one or more cost criteria and recalculating the first set.

It is noted the closest prior art, Mayo, presents a solution of a design problem that calculates a single path plan and minimizes the cost and fails to show calculation of two different sets of path plans.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HABTE MERED whose telephone number is (571)272-6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung S. Moe can be reached on 571 272 7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2416

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Habte Mered/
Examiner, Art Unit 2416
1-30-09

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2416